

REMARKS/ARGUMENTS

In the Office Action mailed March 11, 2009, Examiner rejected claims 1-3 and 8-10 under 37 C.F.R. 102(b) as anticipated by Hardy et al. (USPN 6,005,701), and claims 4-5 and 11 under 37 C.F.R. 103(a) over Hardy et al in view of ITU-T J.185. Further, claims 5 and 12 rejected in view of Hardy in view of ITU-T J.185 and Noreen et al (USSN 5, 303,393), and claims 6-7 and 13-14 in view of the same and also in view of Kikushima (US publ. 2007-0212073).

In the attached claim amendments, claims 1-3, 6-10, 13 and 14 are amended to clarify the subject matter of the invention. In making these revisions care has been taken that no new matter is introduced and the amended claims are fully supported by the specification as originally filed in the present application. The support for the claim amendments is found throughout the specification, in particular, paragraphs [0040] and [0048].

Applicants appreciate the time and consideration provided by the Examiner in reviewing this application, however, respectfully traverses the rejections at least for the following reasons:

Hardy's invention is directed to an optical emission head including a laser and an external optical modulator. In Hardy, the laser signal is modulated by the modulating signal from the external optical modulator, which is modulated by an electrical signal proportional to $1-e$, e being the noise power superimposed onto the laser signal (col. 2, lines 19-29). Hardy addresses to a low-frequency (around 200kHz), relaxation noise, which occurs in a combination of certain lasers with an external optical modulator, and which "is manifested as a fluctuation in power emitted... and corresponds to a narrow low-band spectrum" (col. 1, lines 19-27).

In contrast, in the present application the harmonic distortions of the first signal interfering with the second signal fall in a *high frequency* area, for example, within a band of 11.7-12.8 GHz (see page 14, paragraph [0034], Figs. 9, 10, 25, 26). The low-frequency

noise addressed by Hardy is completely different from the harmonic distortions of the present application. Moreover, Hardy neither discloses nor suggests canceling one or more harmonic distortions of the first signal interfering with the second signal as claimed in independent claims 1 and 8 of the present application. Thus, Hardy et al. teach away from the optical transmitting device and method of modulating an optical signal according to the present application.

ITU discloses transmitting a multi-channel television signal over an optical access network utilizing FM conversion. However, the ITU neither discloses nor suggests canceling one or more harmonic distortions of the first signal interfering with the second signal as claimed in independent claims 1 and 8 of the present application.

Noreen discloses a system for broadcasting program signal to user terminals via a satellite relay. However, Noreen neither discloses nor suggests canceling one or more harmonic distortions of the first signal interfering with the second signal as claimed in independent claims 1 and 8 of the present application.

Kikushima discloses a system for transmitting and receiving an optical signal which is frequency multiplexed with a first and a second signals. However, Kikushima neither discloses nor suggests canceling one or more harmonic distortions of the first signal interfering with the second signal as claimed in independent claims 1 and 8 of the present application.


Accordingly, Applicants respectfully submit the cited prior art, alone or in combination do not teach the present invention as claimed in the independent claims 1 and 8 as originally filed and recently amended. Thus, it is believed that the independent claims are novel and patentable over the prior art. Applicants maintain that dependent

claims 2-7 and 8-14 as originally presented and amended by this response are also novel and patentable over the prior art. Therefore, the application is now in condition for allowance, which allowance is earnestly solicited.

The Commissioner is hereby authorized to charge any additional fees which may be required in this application under 37 C.F.R. §§1.16-1.17 during its entire pendency, or credit any overpayment, to Deposit Account No. 06-1135. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1135.

Respectfully submitted,

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Date: June 9, 2009

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